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DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[30Day-18-17AVB]

Agency Forms Undergoing Paperwork Reduction Act Review

In accordance with the Paperwork Reduction Act of 1995, the Centers for Disease Control and Prevention (CDC) has submitted the information collection request titled "Leveraging the Emerging Field of Disaster Citizen Science to Enhance Community Resilience and Improve Disaster Response" to the Office of Management and Budget (OMB) for review and approval. CDC previously published a "Proposed Data Collection Submitted for Public Comment and Recommendations" notice on September 19, 2017 to obtain comments from the public and affected agencies. CDC did not receive comments related to the previous notice. This notice serves to allow an additional 30 days for public and affected agency comments.

CDC will accept all comments for this proposed information collection project. The Office of Management and Budget is particularly interested in comments that:

- (a) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of

the agency, including whether the information will have practical utility;

(b) Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(c) Enhance the quality, utility, and clarity of the information to be collected;

(d) Minimize the burden of the collection of information on those who are to respond, including, through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses; and

(e) Assess information collection costs.

To request additional information on the proposed project or to obtain a copy of the information collection plan and instruments, call (404) 639-7570 or send an email to [omb@cdc.gov](mailto:omb@cdc.gov). Direct written comments and/or suggestions regarding the items contained in this notice to the Attention: CDC Desk Officer, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503 or by fax to (202) 395-5806. Provide written comments within 30 days of notice publication.

Proposed Project

Leveraging the Emerging Field of Disaster Citizen Science to Enhance Community Resilience and Improve Disaster Response - New - Office of Public Health Preparedness and Response (OPHPR), Centers for Disease Control and Prevention (CDC).

#### Background and Brief Description

The information collection for which approval is sought is in accordance with OPHPR's mission to safeguard health and save lives by providing a platform for public health preparedness and emergency response. As part of its role, OPHPR is empowered to fund applied research to improve the ability of CDC and its partners, including but not limited to state and local health departments, emergency management organizations, and health care entities, to effectively prepare for and respond to public health emergencies and disasters.

Citizen science is defined as research activities (e.g., data collection, analysis, and reporting) performed by members of the general public without any particular training in science. Citizen science is growing in popularity, fueled in part by growing use of smartphones and other personal devices in the population. Although citizen collection and use of data during disasters has increased exponentially in recent years and there is great policy interest in the phenomenon, there has been no robust research to date on the use of, barriers to, and impact of citizen science in disasters. Local health departments (LHDs)

lack tools to respond to and coordinate with citizen science activities within communities. Furthermore, citizen science organizations lack information on how to organize their activities for ultimate impact.

This is an exploratory study and is the first of its kind to explore the growing phenomenon of disaster citizen science.

Disaster citizen science is a rapidly growing field that is the focus of policy interest, but currently devoid of research. While interviews will be hypothesis generating and provide rich data on the experiences with citizen science to date across all stakeholders active in this enterprise, the nationally-representative survey data will allow us to generalize findings to the full population of LHDs in the U.S.

CDC requests approval of a new information collection to learn about how the emerging field of disaster citizen science can enhance community resilience for a period of 1 year. This (mixed methods) information collection using interviews and a cross-sectional survey aims to: (1) explore the potential of disaster citizen science for increasing community resilience, enhancing participation in preparedness and response activities, and improving preparedness efforts; and (2) provide evidence to inform the development of educational and instructional tools for communities and health departments to navigate the emerging field of disaster citizen science and promote collaborations. Insights

from this information collection will be used to inform the development of guidance and toolkits for LHDs and community groups so that they can align their efforts and strengthen the benefits and positive impacts of citizen science activities. For interviews, the information collection will target citizen scientists and end users of citizen science data.

This information collection will be implemented in collaboration with a contractor and will target citizen scientists and their partners (e.g., academics who work with citizen scientists on research projects) and LHDs in a position to use citizen science data to inform public health decision-making. For interviews, researchers will sample for maximum variation, seeking to obtain variation on U.S. region, type and sophistication of citizen science project, type of disaster encountered, and previous experience with disaster citizen science.

The project aims to conduct 35-55 facilitated, semi-structured, individual and group interviews, each lasting approximately 60 minutes, to cover topics including benefits and uses of citizen science, barriers to and facilitators of citizen science, and strengths and limitations of citizen science activities and resources.

Researchers will identify potential interview participants through literature reviews and snowball sampling in a phased approach starting with citizen science and LHD organizations.

The project will sample for maximum variation in order to capture the full range of citizen scientist and health department experiences on this topic. For the survey, the project aims to obtain a nationally representative sample of 600 local health officials and will apply survey weights to ensure that findings have external validity and can be generalized to LHDs in the U.S. The survey, which will take 30 minutes to complete, will include questions on both citizen science as applied to disaster preparedness and response, and citizen science as occurring in other contexts (such as environmental health) to draw lessons for preparedness and response.

CDC anticipates that the knowledge resulting from this research project will contribute significantly to the evidence base for preparedness and response and lead to improved efficiency, effectiveness, and outcomes in several domains.

Participation in this study is completely voluntary. There are no costs to respondents other than their time. A summary of annualized burden hours is below. The total estimated burden hours is 219 hours.

Estimated Annualized Burden Hours

| Type of Respondents   | Form Name                                       | Number of Respondents | Number of Responses per Respondent | Average Burden per Response (in hours) |
|---|---|-----------------------|------------------------------------|--|
| Citizen scientists and their partners; local health officials | Interview Guide (semi-structured questionnaire) | 55                    | 1                                  | 75/60                                  |
| Local health departments                                      | Survey  | 300                   | 1                                  | 30/60                                  |

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